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EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/654,434

Applicant(s)

FEI, WEIBIN

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/3/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The application filed 9/3/03 has been examined. Claims 1-21 are pending.
2. The IDS filed 9/3/03 has been considered.
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The disclosure is objected to because of the following informalities: On page 3 U.S. Patent No. "5,949,3451" should be --5,949,345--.
5. Claims 2, 3 and 12 are objected to because of the following informalities:
 - A. As per claims 2 and 3, "container" should be --system--.
 - B. As per claim 12, "Includes" should be --includes--.
6. Claims 9, 10, 15, 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - A. As per claim 9, "said input/output devices" lacks antecedence (see claim 2).
 - B. As per claim 15, the claim is unclear as recited.
 - C. As per claims 20 and 21, the claims are indefinite because of the use of the term "etc.". Note this term is not required since the transitional phrase "include at least one of" implies that devices other than those specifically listed may be encompassed by the claim.
 - D. All claims depending from a rejected base claim are also rejected as containing the same deficiencies.

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States,

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-10 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Razavi et al. (6,253,122).

A. As per claim 1, Razavi discloses a computer system for a vehicle as essentially shown in Fig. 2 whereby the system includes a processor (22) which is connected to an automotive system of the vehicle (23); a display screen (35) for displaying information concerning the automotive system(s); and means for controlling functions of and operating the automotive system(s) based on displayed information (col. 2, lines 53-57; col. 7, lines 46-54; col. 11, lines 10-12).

B. As per claims 2-10, 15-21, as above whereby a plurality of devices may be connected to the computer system (displays, microphone, internet access, GPS receiver, cellphone, video, memory devices, etc.) and can be controlled using input device(s) and information displayed on one or more display screens located in the vehicle as desired (Fig. 2; col. 2, lines 17-25, 48-57; col. 7, lines 7-19, 46-63; col. 8, lines 8-13; col. 10, lines 46-65; col. 11, lines 14-20).

9. Claims 1-10, 15, 16 and 18-21 are further rejected under 35 U.S.C. 102(b) as being anticipated by Beckert et al. (6,009,363).

A. As per claim 1, Beckert discloses a computer system for a vehicle as essentially shown in Fig. 2 whereby the system includes a processor (64) which is connected to an automotive system of the vehicle (i.e. 28,26); a display screen (24,54) for displaying information concerning the automotive system(s) and other information; and means for controlling functions of and operating the automotive system(s) based on displayed information (82) (col. 5, lines 20-24, 36-41).

B. As per claims 2-10, 15, 16, and 18-21, as above whereby a plurality of devices may be connected to the computer system (joystick/keyboard/mouse, displays, microphone, internet access, GPS receiver, cellphone, memory devices, etc.) and can be controlled using input device(s) and information displayed on one or more display screens located in the vehicle as desired (Figs. 1-3; col. 2, lines 59-64; col. 4, lines 58-61).

10. Claims 1-10 and 15-21 are further rejected under 35 U.S.C. 102(e) as being anticipated by Treyz et al. (6,526,335).

A. As per claim 1, Treyz discloses a computer system for a vehicle as essentially shown in Figs. 2-4 whereby the system includes a processor (72) which is connected to an automotive system(s) of the vehicle (174); display screen(s) (88) for displaying information concerning the automotive system(s) and other information; and means (122) for controlling functions of and operating the automotive system(s) based on displayed information.

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B. As per claims 2-10 and 15-21, as above whereby a plurality of devices may be connected to the computer system (keyboard, pointing device, displays, microphone, internet access, GPS receiver, cellphone, cameras, memory devices, etc.) and can be controlled using input device(s) and information displayed on one or more display screens located in the vehicle as desired (Figs. 3, 4; col. 13, lines 12-28; 51-57, 66-67; col. 14, lines 17-20, 34-56; col. 15, lines 27-35; col. 16, lines 31-33, 54-64; col. 17, lines 40-49; col. 19, lines 50-51; col. 22, lines 50-54).

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Razavi et al., Beckert et al. and Treyz et al., as applied above, in view of Opel (5,555,502) and St. Pierre et al. (6,418,362).

A. Razavi, Beckert and Treyz disclose vehicle computer systems as noted above.

The claimed invention differs in that the input devices (keyboard, trackball/mouse) are mounted in or around the steering wheel. However, at the time of applicant's invention it was well-known in the vehicle arts to locate user interfaces in or around the steering wheel to provide the driver easy access to vehicle controls as well as improve vehicle safety by reducing the need to remove one's hands from the steering wheel. For example, Opel discloses an interface (Figs. 1, 2) which locates alphanumeric keys and

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cursor control devices in the center of the steering wheel whereas St. Pierre discloses various cursor control and selection buttons arranged along the perimeter of the steering wheel (Figs. 1-5). One of ordinary skill in the art would have found it obvious to utilize these known arrangements of input devices located on the steering wheel in the vehicle computer systems of Razavi, Beckert and Treyz because it would have placed the controls within easy access of the driver as well as improve overall vehicle safety by reducing the need to remove one's hands from the steering wheel.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Razavi et al., Beckert et al. and Treyz et al., as applied above, in view of Prince et al. (6,611,250).

A. Razavi, Beckert and Treyz disclose vehicle computer systems as noted above. The claimed invention differs in that the input device is designed to be operated by one's foot rather than one's hands/fingers. However, at the time of applicant's invention it was well-known in the computer interface arts to control a cursor and select displayed information using a foot operated mouse. For example, Prince discloses a foot operated mouse which allows one to control the movement of a cursor and select displayed items in a manner similar to a hand operated mouse. The obvious advantage of using a foot operated mouse is the ability to interact with the computer without requiring the use of one's hands. Using a foot operated mouse in the vehicle computer systems of Razavi, Beckert and Treyz would have provided the same obvious advantages as locating the input devices on the steering wheel and would have provided an alternative thereto. One of ordinary skill in the art would have found it obvious to

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utilize the foot operated mouse in the vehicle computer systems of Razavi, Beckert and Treyz because it would have improved overall vehicle safety by reducing the need to remove one's hands from the steering wheel.


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are representative of the state of the art of vehicle computer systems.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz


MICHAEL J. ZANELLI
PRIMARY EXAMINER